

What is claimed is:

1. A method comprising administering a therapeutically effective amount of an agent to a mammal which has an allergic or inflammatory disease, wherein said agent inhibits an activity or expression of a component of an arginine metabolic pathway in a tissue affected by the disease, and said component is not a nitric oxide synthase (NOS).
2. The method of claim 1, wherein the disease is a respiratory disease.
3. The method of claim 2, wherein the respiratory disease is asthma, chronic airway remodeling, or chronic obstructive pulmonary disease (COPD).
4. The method of claim 3, wherein said agent is capable of binding to the component or a polynucleotide encoding the component.
5. The method of claim 4, wherein said component is an arginase.
6. The method of claim 4, wherein said component is a cationic amino acid transporter.
7. The method of claim 4, wherein said component is downstream of an arginase in the pathway.
8. The method of claim 2, wherein said agent inhibits the expression of the component by RNA interference or an antisense mechanism.
9. The method of claim 8, wherein said agent encodes or comprises an siRNA capable of inhibiting the expression of ARG1 in said tissue by RNA interference.
10. The method of claim 8, wherein said agent encodes or comprises an siRNA capable of inhibiting the expression of CAT2 in said tissue by RNA interference.
11. The method of claim 2, wherein said agent is α -difluoromethylornithine.
12. The method of claim 2, wherein said agent is lysine or a cationic polypeptide.
13. The method of claim 1, wherein the mammal is a human.
14. The method of claim 13, wherein said human has asthma or COPD, and said component is an arginase or a cationic amino acid transporter, and wherein said agent is capable of binding to said component or a polynucleotide encoding said component.
15. A method for identifying an agent for treating an allergic or inflammatory disease, comprising:
 - contacting a molecule with a tissue affected by asthma or another allergic or inflammatory disease, wherein said molecule is capable of binding to a non-NOS component of an arginine metabolic pathway or to a polynucleotide encoding said component; and

determining if said molecule is capable of ameliorating or eliminating a syndrome or phenotype associated with said asthma or disease.

16. The method of claim 15, wherein said molecule is selected or produced based on a structure-based rational drug design or based on screening a compound library.

17. The method of claim 15, wherein said component is an arginase or a cationic amino acid transporter.

18. A method, comprising:

detecting an expression profile of at least one gene in a biological sample of a mammal; and

comparing said expression profile to a reference expression profile of said at least one gene to determine if the mammal has or is at risk for an allergic or inflammatory disease,

wherein said one gene encodes a non-NOS component of an arginine metabolic pathway.

19. The method of claim 18, wherein the disease is asthma.

20. A pharmaceutical composition comprising a pharmaceutically-acceptable carrier and an agent capable of inhibiting an activity or expression of a non-NOS component of an arginine metabolic pathway.